

Isotactic Polymers and Other Stereoregular
Polymers, by G. Natta, Ed.
Papers, 1957, *Journal of Polymer Science*, Vol. 77, 1957,
No. 5, pp 1009-1011
GSA TT-64-38005

G Natta

Oct - 1957
May 67

325,000

Maria, G., Pasquon, I. and others.
KINETICS OF PROPYLENE POLYMERIZATION
WITH HIGHLY STEREOSPECIFIC HETEROGENEOUS
CATALYSTS. V. STUDY OF CHAIN TRANSFER
PROCESSES BY THE USE OF C^{14} LABELED ALKYL
ALUMINUMS. [1960] [28]p. 11 refs.
Order from SLA ml\$2.70, ph\$4.80 61-10471

Trans. of la Chimica e l'Industria (Italy) 1958, v. 40
[no. 4] p. 267-273.

The use of triethyl aluminum labeled with C^{14} made it possible to demonstrate that in the polymerization of propylene in the presence of the $TiCl_3$ (violet modification)- $Al(C_2H_5)_3$ -n-heptane catalytic system, a part of the polymeric chain growth scission processes, and in particular those depending upon the concentrations of each component of the catalyst, take place by an introduction of the C_2H_5 -group formed from the $Al(C_2H_5)_3$ into the polymer. The orders of the rate of the polymeric chain rupture processes with respect (Chemistry--Organic, TT, v. 5, no. 6) (over)

61-10471

1. Propene--Polymerization
2. Polymerization--Analysis
- I. Natta, G.
- II. Pasquon, I.
- III. Title: Study...

Office of Technical Services

Preparation and Structure of Linear High Polymers of
1-Monomers, by G. Natta et al.

ITALIAN, per, Gazz. Chim. Ital., Vol. LXXXIX, No. 11,
1959, pp. 465-494.

REF 137-17

SLA 60-10713

Sci
Nov 59

100, 411

Vulcanized Elastomers from Substantially Amorphous α -Clafin Polymers and Copolymers and Process for their Production, by Batta, Giulio, Crespi, Giovanni, Borsini Giancarlo, 32 pp.

ITALIAN, Belgian patent 563,834, 9 Jan 58, by Montecatini Società Generale per l'Industria Mineraria e Chimica, Milan. Priority: Italian patent application 490, filed 9 Jan 57 and 10, 957, filed 23 Jul 57.

118 rpt 96954

Sci - Chem
CHE I, 12

Jul 59

92,295

[Kinetics of Propylene Polymerization with Highly
Stereospecific Heterogeneous Catalysts]. Part III,
Chain Deactivation Processes Dependent on the
Catalyst Concentration, by G. Natta, I. Pasquon,
E. Giachetti, 18 p.

ITALIAN, per, la Chimica Ind, 1958, Vol IX, No 2,
pp 97-103.

CTS 41-10-169
SLA 59-20711

110,856

Sci
Mar 60
Vol 3, No 1

The Structure of the Alkali Cyanides and Their
Isomorphism With the Halides, by G. Katta,
L. Passerini, 28 pp.

ITALIAN, per, Gazzeta Chimica Italiana, Vol LXI,
pp 191-215.

S.L.A. Tr No 139/1955

Sci - Chemistry
Jan 1957 CTB/dex

45, 857

Kinetics of Oxosynthesis, II., by G. Matta,
R. Ercoli, S. Castellano, 41 pp.

ITALIAN,
XXXXXX, per, La Chimica e L'Industria, No 7,
1955, pp 6-38.

28,377

CIA/FDD/2-1076

XX-3

IAC ONLY

Nov 55 CTS

Scientific - Chemistry

Synthesis and Structure of Some Crystalline Poly-
hydrocarbons Containing Asymmetric Carbon Atoms
in the Main Chain, by G. Matta, P. Pino, G. Mazzanti,
9 pp.

ITALIAN, per, Chimica e l'Industria, Vol XXXVII,
No 12, 1955, pp 927-932.

OTS 61 17311
Asso Tech Serv
861281

ATS - 154 II J

Sci - Chem
OTS I, 9
Jun 59

89,526

The Oxo Synthesis, its Kinetics and Related
Reactions, by G. Hantz.

GERMANY, per, Brennstoff-Chemie, Vol XXVI,
1955, pp 176-181.

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Central Exper Sta
Pitts., Pa. Tr 211

Sci - Chem

Jun 59

89,947

Natta, G., Pino, P. and others
SYNTHESIS AND CHARACTERISTICS OF NEW POLYMERS OF THE ALPHA OLEFINS WITH EXCEPTIONALLY REGULAR STRUCTURE. [1961] [7]p.
Order from SLA \$1.10 62-14034

Trans. of mono. (paper) from World Petroleum Congress (no. 4) [Rome, 1955]. Proceedings, sect. IV/C.

DESCRIPTORS: *Polymers, *Ethylenes, *Petroleum, Synthesis, Crystals, Mechanical properties.

Topics discussed include (1) generalities of the polymer of alpha olefins, (2) synthesis and characteristics of crystalline polymers of alpha olefins, and (3) mechanical properties of isotactic polymers.

(Chemistry--Organic, TT, v. 8, no. 7)

62-14034

I. Natta, G.
II. Pino, P.

Office of Technical Services

A New Class of α -olefinic Polymers Having an
Exceptional Regularity of Structure, by G. Natta,
11 pp.

ITALIAN, per, J. Polymer Sci, V No 16, 1955,
pp 143-154.

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CIA/FDD/XX-10
IAC Internal Use Only

28,670

Scientific - Chemistry

Nov 55 CTS

A New Class of Polymers of α -Olefin with
Exceptional Regularity of Structure, by
G. Natta, 20 pp.

ITALIAN, per, Accademia Nazionale dei Lincei.
Atti. Memorie di Scienze Fisiche, Serie 8,
Vol. IV, No. 4, 1955, pp 61-71.

SLA 61-17641

Sci

24 Jul 62

Vol VII, No 10

204, 191

X-Ray Studies on Crystallinity and Structure of
High Molecular Weight Hydrocarbons, by G. Natta,
P. Corradini, 17 pp.

~~INDEX~~ ITALIAN, par, Ricerca Scientifica, Vol XXV,
1955, pp 695-705.

SLA 61-17634

Sci
24 Jul 62
Vol VII, No 10

204, 788

Natta, G.
THE GEOMETRICAL FORM OF THE HELICAL
CHAINS OF CRYSTALLINE ISOTACTIC POLYMERS.
13p. 6 refs. MWL: 8531
Order from OTS or ETC \$1.85

61-17346

Trans. of Accademia Nazionale dei Lincei, Atti.
Classe di Scienze Fisiche, Matematiche e Naturali.
Rendiconti (Italy) 1955, ser. 8, v. 19, p. 453-459.

DESCRIPTORS: *Polymers, Crystals, *Molecular
structure, Geometry.

61-17346

- I. Natta, G.
- II. MWL: 8531
- III. Stichting Moedijk
Toegankelijke Wetenschap-
pelijke Literatuur

201400

Office of Technical Services

Kinetic Interpretations of Heterogeneous Catalysis and
Applications to reactions Between Gases at High Pres-
sure. II. Synthesis of Methanol over Copper-Containing
Catalysts, by G. Natta.

FRENCH, per, Chimie Ind, Vol XXXVII, Dec 1955, pp
1015-1025.

ADLIB-0835

Sci

Aug 59

93, 601

Natta, G., Pino, P., and Mazzanti, G.
HIGH MOLECULAR WEIGHT POLYMERS OF
ACETYLENIC HYDROCARBONS AND METHODS FOR
THEIR PREPARATION. [1961] 6p.
Order from ATS \$12.60

ATS-04N511

Trans. of Italian patent 530,753, filed 18 Mar 55,
granted 15 Jul 55.

DESCRIPTORS: *Polymers, Molecular weight,
Synthesis, *Acetylenes, Polymerization.

(Chemistry--Organic, TT, v. 6, no. 2)

61-22336

- I. Natta, G.
- II. Pino, P.
- III. Mazzanti, G.
- IV. Patent (Italy) 530 753
- V. ATS-04N511
- VI. Associated Technical
Services, Inc.,
East Orange, N. J.

Office of Technical Services

Natta, G., Mazzanti, G., and Boschi, G.
COPOLYMERS OF HIGH MOLECULAR WEIGHT
FROM OLEFINS AND PROCEDURES FOR THEIR
PREPARATION. [1961] 46p. (7 figs. 3 tables omitted)
7 refs.

Order from OTS or SLA \$4.60

62-10759

Trans. of Italian patent 554,803, by Montecatini Co.
of Milan for the Mining Industry and Chemistry, filed
23 Dec 55, granted 16 Jan 57.

DESCRIPTORS: *Ethylene, *Polymers, *Molecular
weight, Alkyl radicals, Catalysts, Transition
elements, Polymerization.

A process is proposed for the preparation of linear,
high molecular weight copolymers, substantially free
of homopolymers, from alpha-olefins $\text{CH}_2 = \text{CHR}$
where R is an alkyl, among themselves and/or with
ethylene. The process is characterized by the use of
(Engineering--Chemical, TT, v. 7, no. 11) (over)

62-10759

- I. Natta, G.
- II. Mazzanti, G.
- III. Boschi, G.
- IV. Patent (Italy) 554 803

209685

Office of Technical Services

Natta, G.

STEREOSPECIFIC CATALYSIS AND ISOTACTIC POLYMERS [Stereospezifische Katalysen und Isotaktische Polymere]. [1961] 30p. 34 refs.

Order from ES \$15.00

Trans. of Angew[andte] Chem[ie] (West Germany) 1956, v. 68, p. 393-[403] (Also pub. in la Chimica e l'Industria (Italy) 1956, v. 38, p. 751ff).

Another translation is available from SLA \$3.60 as 61-16700 [1961] [39]p.

DESCRIPTORS: *Catalysis, *Polymers, Synthesis, Polymerization.

(Chemistry--Organic, TT, v. 6, no. 7)

61-25133

1. Title: Isotactic polymers
2. Title: Stereospecific polymerization

- i. Natta, G.
- ii. Stux, Erica, Akron, Ohio

Office of Technical Services

Natta, G., Corradini, P., and Porri, L.
THE STRUCTURE OF NEW POLYMERS OF CONJUGATE
DIOLEFINS CONTAINING 1-4 TRANS LINKAGES.
12p. MTWL: 872.
Order from OTS or ETC \$1.85

61-17636

Trans. of Accademia Nazionale dei Lincei, Atti.
Classe di Scienze Fisiche e Matematiche. Rendiconti.
(Italy) 1956, Ser. 8, v. 20, p. 728-734.

DESCRIPTORS: *Polymers, *Butadienes, *Isoprene,
X-ray diffraction analysis, Structures.

61-17636

- I. Natta, G.
- II. Corradini, P.
- III. Porri, L.
- IV. MTWL-872
- V. Stichting Moelijk
Toegankelijke Wetenschap-
pelijke Literatuur

Office of Technical Services

Structure of the Chain of Crystalline Poly
(the Propylene Oxide), by G. Ettore, et al.

ITALIAN, per, Accademia Nazionale dei Lincei.
Atti. Classe di Scienze Fisiche, Matematiche e
Naturali Rendiconti. Serial II B, Vol. XX, 1956,
pp 408-423.

SLA 61-17616

204, 792

Box
24 Jul 66
Vol VII, No 10

Crystalline Polymer of Butadiene With 1-2
Isotactic Linkage, by G. Natta, I. Porri,
P. Corradini, et al.

ITALIAN, per, Accademia Nazionale dei Lincei,
Roma. Classe di Scienze Fisiche Matematiche
e Naturali, Rendiconti, Vol XX, 1956,
pp 560-566.

CSIRO

193,724

Sci - Chem
Apr 62

Stereospecific Polymerization of α -olefins, by G.
Natta, 9 pp.

FRENCH, per, Chimica e l'Industria, Vol XXVIII,
No 2, 1956, pp 124-127.

SLA Tr 1502/56

Sci - Chem
Mar 57 CTB

45, 2.51

Applied Chemistry/ Stereospecific Catalysts and
Isotactical Polymers, by G. Natta, 36 pp.

GERMAN, no per, Angew Chem, Vol LXVIII, No 12,
1956, pp 393-403. CIA 60772

ATIC P-TS-10027/V

Sci - Chem
Vol. 57

49,299

Viscosity Numbers and Molecular Weights
of Fractionated Isotactical Polystyrenes,
by G. Natta, F. Danusso, G. Moraglio, 7 pp.

GERMAN, per, Makromol Chem, Vol XX, 1956,
pp 37-45.

NOT RELEASE TO FOREIGN NATIONALS

CIA/FID XX-282

437,662

Sci - Chemistry
May 1957 CIB/lex
IAC INTERNAL USE ONLY

Crystal Structure of 1, 4-Cl₂-Polybutadiene and
1, 4-Cl₂-Polyisoprene, by G. Mitta, F. Corradini,
et al.

GERMAN, per, Angew Chem, Vol. LXVIII, 1956, pp 615-
616.

MLA 59-10503

Sci - Chemistry
Sep 59
Vol II, No 2

98, 686

Preliminary Report on the Crystal Structure of
Isotactic Poly-2-Butene, by G. Hatt, P. Corradini,
I. W. Bassi, 4 pp.

GERMAN, per, Makromol Chem, Vol XXI, No 3, Dec 1956,
pp 240-244.

SLA Tr 57-1175

Sci - Chemistry
Oct 57

54,487
ASL-B-G-2-21
ATS-164-63

Process for the Polymerisation of Acrylonitrile and
Polymers Obtained Thereby, by G. Natta, G. Dall'
Asta, 6 pp.

FRANCE, patent, 1, 183,644, cl. 8 gr. 14, Internat.
cl. C 08 F, appl. 1 Oct 57, granted 26 Jan 59,
pub. 9 July 59 (Priority: Italy, 4 Oct 56) by
Montecatini (Soc. Gen. Industria Mineraria e
Chimica).

SIA 60-10730

Sci

Jun 60

118,329

61-25422

Natta, G., Porri, L. and others.
ISOTACTIC TRANS-1, 4 POLYMERS OF 1, 3-PEN-
TADIENE. 1961, 2250 words, 3 refs.
Order from CTS(Chem) \$9.00 CTS(Chem)-222
Subsequent copies \$1.50/ea.

Trans. of [Accademia Nazionale dei] Lincei. [Classe
di] Scienze Fisiche Matematiche e Naturali.
Rendiconti [Italy] 1960 [ser. 8] v. 29, p. 257-264.

DESCRIPTORS: *Pentadienes, *Polymers, Synthesis,
Polymerization.

(Chemistry--Organic, TT, v. 6, no. 10)

- I. Natta, G.
- II. Porri, L.
- III. CTS(Chem)-222
- IV. Chemical Translating
Service, Palo Alto, Calif.

Office of Technical Services

A Process for the Preparation of Linear Polymers of
Aromatic Vinyllic Hydrocarbons, and Products Obtained
by the Process, by Guilio Natta, Dario Sianesi, 2 pp.

ITALIAN, Patent Appl, 4501, 25 Mar 1956.

CIA/FID IX-22803

NOT RELEASABLE TO FOREIGN NATIONALS

Sci - Chem
Mar 60

Kinetic Presentation of the Study of the
Formation of Stereoblock Polymers, by
Giulio Natta, 13 p.

ITALIAN, per, Acad Nazionale dei Lincei,
Classe Sci Fis Mat Nat Rend 1958, Vol XXIV,
No 3, pp 246-253.

SLA 60-10244

112, 091

Sci

Apr 60

Vol XII, No 3

Kinetic Treatment of the Formation of Stereoblock
Polymers, by Giulio Natta, 15 pp.

ITALIAN, Per, Accad Lincei. Classe Sci Fiz Mat Nat, Rend,
1958, Vol XXIV, No 3, pp 246-255.

SLA 59-10809

Sci
Oct 59
Vol 2, No 3

99,892

Isophase Transitions of Polymers of α -Olefines of
the Normal Aliphatic Series, by Giulio Natta,
Ferdinando Danusso, Giovanni Moraglio, 11 pp.

ITALIAN, per, Accademia Nazionale dei Lincei. Classe
di Scienze Fisiche Matematiche e Naturali Rendiconti,
Vol. XXIV, ser 8, 1953, pp 254-260.

SLA 59-15001

Sci. - Chemistry
Nov 59

103,285

Natta, Giulio, Parina, Mario, and Peraldo, Mario.
POLYMERS HAVING A DOUBLY ISOTACTIC
STRUCTURE. [Nov 69] 1800 words 5 refs
Order from CTS(Chem) \$7.10 CTS(Chem)-348
subsequent copies \$1.20/ea.

Trans. of [Accademia Nazionale dei] Lincei. [Classe
di Scienze Fisiche, Matematiche e Naturali].
Rendiconti [Italy] 1958 [ser. 8] v. 25, p. 424-430.

DESCRIPTORS: *Polyethylene plastics, *Propene,
Polymerization, Ziegler catalysts, *Stereochemistry,
Molecular structure.

(Materials--Plastics, TT, v. 11, no. 5)

TT-64-12044

- I. Natta, G.
- II. Parina, M.
- III. Peraldo, M.
- IV. CTS(Chem)-348
- V. Chemical Translating
Service, Palo Alto, Calif.

Office of Technical Services

Natta, Giulio, Pino, Piero, and Poli, Lido.
A PROCESS OF MANUFACTURING HIGHER MOLEC-
ULAR WEIGHT COPOLYMERS OF α -OLEFINS AND
DIOLEFINS. July 63, 14p.
Order from SA \$21.00

SA Code-P-153

Trans. of Japanese patent 255,539, cl. 26-B-2
(26-B-11) Appl. No. 6804/1955 filed 17 Mar 56, pub.
25 May 59 as 3591/1959, by Montecatini Società, Italy
(priority claimed 18 Mar 55, Italy).

DESCRIPTORS: *Polyethylene plastics, *Butenes,
*Pentadienes, *Diene, *Butadienes, *Pentadienes,
*Hexadienes, *Isoprene, *Copolymerization, Metal-
organic compounds, *Ziegler catalysts, Titanium
compounds, Chlorides, Aluminum compounds, Alkyl
radicals, *Elastomers.

(Materials--Plastics, IT, v. 10, no. 6)

1. Natta, G.
II. Pino, P.
III. Poli, L.
IV. Patent (Japan) 255,539
V. SA Code-P-153
VI. Seizaburo Aoki (Japan)

144077

Office of Technical Services

Natta, Giulio, Giuffrè, Luigi, and Pasquon, Italo.
DETERMINATION OF METALS BOUND TO ISO-
TACTIC POLYPROPYLENE CHAINS. 7 June 60, 12p.
9 refs.

Order from SLA \$1.60

61-16791

Trans. of Accad[emia] Naz[ionale dei] Lincei. [Classe
di Scienze Fisiche, Matematiche e Naturali. Rend-
conti] (Italy) 1958 [ser. 8] v. 25, no. 6, p. 417-423.

DESCRIPTORS: *Propenes, Polymers, *Metals, De-
termination, Polymerization, Molecular weights.

In the polymerization of isotactic polymeric propylene,
with the $\text{Al}(\text{C}_2\text{H}_5)_3$ - σ - TiCl_3 catalytic system, the
chain transfer process, the rate of which is a function
of the square root of the concentration of alkylalumi-
num, introduces $-\text{C}_2\text{H}_5$ terminal groups into the poly-
meric chains which remain, for the most part, bound
to aluminum. With the variation of the concentration of
alkylaluminum, a variation in the number of $-\text{C}_2\text{H}_5$
(Chemistry--Organic, TT. v. 6, no. 5) (over)

61-16791

I. Title: Isotactic polymers

I. Natta, G.

II. Giuffrè, L.

III. Pasquon, I.

Office of Technical Services

Chromatographic Fractionation of Stereoblock
Polymers, by Giulio Natta, Mario Pegoraro,
Mario Peraldo, 12 p.

ITALIAN, per, la Ricerca Scientifica (ed il
Progresso Technica nell'Economia Nazionale,
1958, Vol XXVIII, July pp 1473-1479.

SLA 59-17059

Sci
Jan 60
Vol 2, No 8

105,469

Natta, Giulio.

HIGH-PRESSURE SYNTHESIS OF OXYGENATED
ORGANIC COMPOUNDS WITH CARBON MONOXIDE.

May 62, 9600 words, 41 refs.

Order from CTS(Chem) \$19.20

Subsequent copies \$3.20/ea.

CTS(Chem)-271

I. Natta, G.

II. CTS(Chem)-271

III. Chemical Translating
Service, Palo Alto, Calif.

Trans. of [la] Chimica e [l] Industrie (Italy) 1951,
v. 33, no. 5, p. 272-282.

DESCRIPTORS: *Organic compounds, Synthesis,
Pressure, *Carbon compounds, *Kerosides,
Reagents.

(22) 1.77

(Chemistry, Organic, TT, v. 8, no. 2)

Office of Technical Services

Natta, Giulio, Pino, Piero and others.
SYNTHESES AND PROPERTIES OF CRYSTALLINE
HIGH POLYMERS OF SOME ALPHA-OLEFINS WITH
A BRANCHED CHAIN. [1960] 10p. 9 refs.
Order from SLA mi\$1.80, ph\$1.80 60-1849

Trans. of Accademia Nazionale dei Lincei. Classe
[di Scienze] Fisiche, Matematiche e Naturali.
Rendiconti (Italy) 1955, v. 19, p. 397-403.

(Chemistry--Organic, TT, v. 5, no. 3)

60-1849

- I. Propene--Synthesis
I. Natta, G.
II. Pino, P.

Office of Technical Services

The Crystal Structure of Isotactic Polystyrene, by
~~HECK~~ Giulio Natta, Paolo Corradini, 3 pp.

ITALIAN, per, Makromol.Chem., Vol XVI, No 1, 1955,
pp 77-80.

S.I.A. No 369/2956

34, 289

Scientific - Chemistry

Acad. Tech. Sci. - 360/95

CIA/FW/XX-125

200-100-125
34, 289
\$3.20

Doc - 100-125 only

Propylene Polymers of High Molecular Weight and
Procedure for their Preparation, by Giulio Katta,
13 p.

ITALIAN, patent 335,712, CL. XIV, introduced
8 June 54, approved 17 Nov 55.

BLA 60-10091

Sol
Apr 60
Vol III, No 2

111, 653

Crystalline Structure of Isotactic Polypropylene,
by Giulio Natta, Paolo Corradini, Marco Casari,
10 p.

ITALIAN, per, Accad Nazionale Lincei, (Classe di Sci
Fi Mat e Nat Rend, 1956, Vol XXI, No 5, pp 365-372.

SLA 59-15931

Sci
Jan 60
Vol 2, No 6

103 745

Stereospecific Catalysts and Isotactic
Polymers, by G. Natta, 41pp
GERMAN, per, Angewandte Chemie, Vol 68, 1956,
No 12, pp 397-405
SLA TT-64-10814

G. Natta

Sci - Chem
JUN 67

328,049

Catalysis and Stereospecific Polymerization,
by Giulio Natta, 28pp
FRENCH, per, Nucleus, Vol 4, 1963, No 2,
pp 97-108
SLA TT-64-16133

Giulio Natta

Sci - Chem
June 67

328,950

Production of Crystalline Polyolefins in
Absence of Solvents, by Giulio Natta,
Piero Pino, Giorgio Mazzanti, Ilpp
RELIZAN, patent 551,276, by Montecatini
Societa Generale per l'Industria Mineraria e
Chimica Milan and Karl Ziegler, filed 25 Sep
56, appl 13,620,
NIS-96779

Giulio Natta

Sci - Chem
June 67

528,951

New Catalysts of Higher Activity for Olefin
Polymerization, by Butta, Giulio, Damasco,
Ferdinando, Giannini, Mario, 28 pp.

ITALIAN, Belgian patent 563,350, 19 Dec 57,
by Montecatini Società Generale per l'Industria
Mineraria e Chimica, Milan, and Carlomaglar,
Mulheim. Priority: Italian patent application
18 646, filed 20 Dec 56 by Montecatini.

RIS rpt 96955

Sci - Chem
ORS I, 12
Jul 59

92, 329

Mesomorphic Smectic Modification of Isotactic
Polypropylene, by Giulio Natta, Mario Peraldo,
Paolo Corradini, 7 p.

ITALIAN, per, Acc Lincei Rend, 1959, Vol XXVI,
No 1, pp 14-17

SLA 59-17937

Sci
Mar 60
Vol 2, No 12

109,262

Natta, Giulio, Mazzanti, Giorgio and others.
A NEW CRYSTALLIZABLE ORGANOMETALLIC
COMPOUND CONTAINING TITANIUM AND ALUMINUM
AND ITS CATALYTIC PROPERTIES IN THE POLYMERIZATION OF OLEFINS. [1952] Sp. 5 refs.
Order from CTS(chem) 14.40 CTS(chem) 200
Library and copies 10.75/ea.

Trans. of the Academy of Sciences of the Institute of Sciences
[1952] Sp. 5 refs. [Mazzanti, Giorgio and others]
[1952] Sp. 5 refs. [Mazzanti, Giorgio and others]
[1952] Sp. 5 refs. [Mazzanti, Giorgio and others]

Organometallic compounds. Organometallic compounds.
Organometallic compounds. Organometallic compounds.
Allyls, catalysts, Polymerization, Polymerization.

Organometallic compounds. Organometallic compounds.

62-1765

1. Natta, Giulio.
2. Mazzanti, Giorgio.
3. Natta, Giulio.
4. Mazzanti, Giorgio.
5. Natta, Giulio.

(62-1766)

Natta, G., Pino, P., and Farina, M.
KINETICS OF POLYMERIZATION OF ETHYLENE
CATALYZED BY ALKYL ALUMINUM COMPOUNDS
(Cinetica della Polimerizzazione dell'Etilene Cataliz-
zata da Composti Alluminio Alchilici). [1961] 12p.
(3 figs. omitted; 4 refs.
Order from SLA \$1.60

61-20959

Trans. from mono. Symposium on Macromolecular
Chemistry [held at] Milan, 27 Sep 54.

DESCRIPTORS: *Ethylene, *Polymerization, *Reaction
kinetics, *Catalysts, *Alkyl radicals, *Aluminum com-
pounds, Molecular weight.

(Chemistry--Organic, TT, v. 7, no. 7)

61-20959

I. Natta, G.
II. Pino, P.
III. Farina, M.

ATTN: SD 50-1113

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61-20651

Natta, G., Pasquon, I., and Giachetti, E.
KINETICS OF THE STEREOSPECIFIC POLYMERI-
ZATION OF PROPYLENE TO ISOTACTIC POLY-
MERS. [1961] [16] p. 34 refs. 12 figs.
Order from SLA \$1.60 61-20651

Trans. of Angew[andte] Chem[ie] (West Germany)
1957, v. 69, no. 7, p. 213-219.
Another trans. is available from SLA for \$2.40,
pb \$3.30 as 59-15929 [1959] 15p.

DESCRIPTORS: *Propenes, Polymerization, *Polymers,
Sterechemistry, Titanium compounds, Chlorides,
Aluminum, Ethyl radicals, Catalysts, Catalysis.

For abstract see Technical Translations 2: 482, 1959.

(Chemistry--Organic, TT, v. 6, no. 12)

I. Natta, G.
II. Pasquon, I.
III. Giachetti, E.

LA-3215

See also

Office of Technical Services

Properties, Constitution, and Analysis of Ternary ~~M~~
Mixtures, Water-Methanol-Formaldehyde, by G. Natta,
M. Baccoredda, 16 pp.

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Examination of Some Vinyl Polymers With Electron
Rays, by G. Matta, R. Rigamonti, 12 pp.

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Electronic Ray Examination of Certain Vinyl
Polymers, by G. Matta, Rignanti, 9 pp.

ITALIAN, per, Atti Accad Lincei, Classe Sci Fis
Mat, Vol XXIV, 1936, pp 381-388.

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TT-64-12520

Netts, O.
HIGH-MELTING LINEAR POLYETHYLENES AND
PROCESS FOR THEIR PRODUCTION. Jan 64.
Order from RIS \$35.00 RIS-9689
Polyolefins Set \$750.00

Trans. of Belgian patent 553 277, by Montecatini,
Milan, Dec 56. (Abstract available)

DESCRIPTORS: *Heat-resistant plastics, *Poly-
ethylene plastics, *Ethylenes, Polymerization,
Metalorganic compounds, *Ziegler catalysts, Solvents.

A process for polymerizing ethylene with a solid
catalyst obtained by contacting a solid, microcrystalline
halogenated compound of a group IVB, VB or VIB metal
in which the valency of the metal is below the maximum
with an organometallic compound of a metal of group II
or III in the presence of a solvent for ethylene in which
the microcrystalline compound is insoluble, in order to
(Materials--Plastics, TT, v. 11, no. 11) (over)

- I. Netts, O.
- II. Patent (Belgium) 553 276
- III. RIS-9689
- IV. Research Information
Service, New York

180834

Office of Technical Services

Natta, G. and others.
IMPROVEMENTS IN THE POLYMERIZATION OF
ETHYLENE. Jan 64.
Order from RIS \$17.00
Polyolefins Set \$750.00

RIS-00909

Trans. of Belgian patent 539 477, by Montecchini,
Milan, Jul 57. (Abstract available)

DESCRIPTORS: *Polyethylene plastics, *Ethylenes,
Polymerization, *Metallorganic compounds, *Ziegler
catalysts.

A catalyst prepared by contacting an chloride of a group
IVB, VB or VIB metal with an organometallic compound
of a group II or III metal in appropriate molar propor-
tions is used to obtain products containing a large
proportion of linear, highly crystalline high polymers.
(RIS abstract)

(Materials--Plastics, TT, v. 11, no. 11)

TT-44-12325

I. Natta, G.
II. Patent (Belgium) 539 477
III. RIS-01808
IV. Research Information
Service, New York

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Office of Technical Services

Matta, G. and others.
ELASTOMERS OF EXCEPTIONALLY HIGH RESILI-
ENCE FROM COPOLYMERS OF ETHYLENE WITH
ALIPHATIC α -OLEFINS. Jan 64.
Order from RIS \$34.00 RIS-96891
Polyethylene Set \$750.00

Trans. of Belgian patent 556 902, by Montecatini,
Milan, Apr 56. (Abstract available)

DESCRIPTORS: *Elastomers, *Polyethylene plastics,
*Alkenes, *Ethylenes, Copolymerization,
Vulcanization.

Chlorosulfonated copolymers of ethylene with aliphatic
 α -olefins such as propylene are vulcanized by heating
in the presence of suitable acceptors for the acid com-
ponents formed during vulcanization and yield homo-
geneous products with good mechanical and electric
properties. (RIS abstract)
(Materials--Elastomers, TT, v. 11, no. 11)

TT-64-12322

I. Matta, G.
II. Fawaz (Belgium) 556 902
III. RIS-96891
IV. Research Information
Service, New York

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The Hydrogenation of Furfural and its Derivatives, by
G. R. H. H. H.

ITALIAN, *Chim e Ind*, Vol XXIII, 1941, pp 117-123.

INSDOC T 1748

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Comparison of Experimental Results and
Thermodynamic Predictions on the Hydrogenation of
Carbohydrates at Low Temperatures, by G. Natta,
E. Beati, 14 pp.

ITALIAN, per, Ricerca Sci, Vol XXI, Jan 1943,
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S.L.A. Tr No 57-112

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Natta, G. and Pino, P.

A COMPARISON OF THE SYNTHESIS OF ESTERS
FROM ACETYLENE AND ETHYLENE BY REACTION
WITH CARBON MONOXIDE AND ALCOHOLS. Paper
presented at the Congress of Industrial Chemistry
(no. 23) Paris, Nov 51. [1962] [12]p. 8 refs.
Order from SLA \$1.60

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Trans. of [la] Chimica e [l]Industrial (Italy) 1952,
v. 34, p. 449-453.

DESCRIPTORS: *Esters, Synthesis (Chemistry),
*Acetylenes, Alcohols, Methanol, Carbon compounds,
Monoxides, Ethylenes, *Acrylic acid esters, *Fatty
acid esters, Ketones

In continuation of their studies of the reaction between
acetylene, carbon monoxide, and alcohols the authors
compare the synthesis of ester and diesters from
acetylene with the analogous synthesis of esters from
(Chemistry--Organic, TT, v. 1, no. 12) (over)

- I. Natta, G.
- II. Pino, P.
- III. Title: Congress...

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Quantitative Determination of the Crystallinity of
Polypropylene, by G. Natta, Corradini, M. Cesari,
13 pp.

ITALIAN, per, Atti Accad Naz Lincei Rend Classe
Sci Mat e Nat, Vol XXII, No 8, pp 11-17, 1957.

SLA 3453

Assoc Tech Serv 80/181

Sci - Chem
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SLA 57-15000

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Kinetics of Propylene Polymerization with Rigid,
Stereospecific Heterogeneous Catalysts. Part 1.
Overall Kinetics of Polymerization Process, by
G. Natta, I. Pasquon, E. Giachetti, 20 pp.

ITALIAN, per, la Chimica e l'Industria, Vol XXXIX,
No 12, 1957, pp 993-1001.

SLA 59-15512

675 61-10477

Sci - Chem
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Vol 1, No 4

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Kinetics of Propylene Polymerization with Highly
Stereospecific Heterogeneous Catalysts. Part II.
Nature of the Period of Increasing Polymerization
Rate, by G. Natta, I. Pasquon, R. Ciachetti,
21 pp.

ITALIAN, Per, la Chim e l'Industria, 1957.
Vol. XXXIX, No 12, pp 1002-1012.

SLA 59-15513

DT5 61-10498

99,893

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Vol 2, No 3

61-10476

Natta, G., Mazzanti, G. and others.
COPOLYMERIZATION OF ETHYLENE WITH ALI-
PHATIC ALPHA-OLEFINS. I. PRELIMINARY
STUDIES OF ETHYLENE-PROPYLENE COPOLY-
MERIZATION (Copolimerizzazione dell'etilene con
le α -olefine Alifatiche. Nota I. Studi Preliminari
della Copolimerizzazione dell'etilene conil Propilene)
[1960] 45p. 21 refs.
Order from SLA ml\$3.30, ph\$7.80 61-10476

Trans. of la Chimica e l'Industria (Italy) 1957,
v. 39, no. 9, p. 733-743.

Ethylene-Propylene copolymers are produced by poly-
merization of mixtures of the olefins with catalysts
made from aluminum tri-n-hexyl and vanadium oxy-
chloride. The products are true copolymers with
rubbery properties characteristic of an unvulcanized
elastomer. Polymers are separated by a complicated
fractionation scheme involving acetone, ether, hexane
and heptane. Composition of the copolymer is deter-
(Chemistry--Organic, TT, v. 3, no. 6) (over)

1. Copolymerization--
Analysis
2. Ethylenes--Polymerization
- I. Natta, G.
- II. Mazzanti, G
- III. Title: Preliminary...

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Reaction of Bicyclopentadiene Derivatives in
Situations for the Study of Catalysts for
Polymerization Under Low Pressure, by L. H. Hsieh,
P. Hsieh, and P.

CHINESE J. CHEM. IND. Vol. 19, No. 1,
1976, pp. 19, 20.

RIS rpt 96958

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Dun 35
Vol. 2, No. 5

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Stereospecific Catalysts and Stereospecific Polymers
Synthesis of New Fibers, Plastics, and Elastomers,
by G. Natta, 29 pp.

ITALIAN, lecture, Meeting of Sixteenth International
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Isotactic and Stereoblock Polymers of Propylene, by
G. Natta, G. Mazzanti, G. Crespi, G. Moraglio, 28 pp.

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pp 275-283, 1957.

SIA 3447

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Kinetics of Chain Growth and Termination Processes
in Stereospecific Polymerization of Polypropylene,
by G. Natta, I. Pasquon, E. Giachetti, 19 pr.

GERMAN, per, Makromol. Chem, Vol XXIV, No 3, ~~Oct~~ Oct
1957, pp 258-280

ELA 57-3574

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Natta, G., Crespi, G. and others.
NEW TERPOLYMERS BASED ON ETHYLENE AND
PROPYLENE. [1963] 15p. 7 refs.

Order from CTS(Chem) \$13.20

CTS(Chem)-341

subsequent copies \$2.20/ea.

Trans. of [la] Chimica e [l']Industria (Italy) 1963,
v. 45, no. 6, p. 651-656.

DESCRIPTORS: *Elastomers, *Polyethylene plastics,
*Ethylene, *Propenes, *Dienes, Copolymerization,
Ziegler catalysts, Physical properties, *Vulcanization,
Fillers, Oils, Aging.

(Materials--Elastomers, IT, v. 10, no. 9)

1. Title: 1,5-Cyclo-
octadiene

I. Natta, G.

II. Crespi, G.

III. CTS(Chem)-341

IV. Chemical Translating
Service, Palo Alto,
Calif

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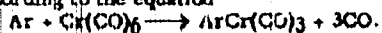
Natta, G., Ercoli, R., and Calderazzo, F.
SYNTHESIS OF AROMATIC-CHROMIUM-TRICARBONYL COMPOUNDS [Sintesi di Arene-Cromo-Tricarbonyli]. [1961] 9p. 5 refs.

Order from SLA ml\$1.80, ph\$1.80.

SLA 77-65-14053 SLA 77-64-30943

Trans. of la Chimica e l'Industria (Italy) [1958]
v. 40, no. 4, p. 287-289.

The method for the synthesis is based on the reaction between aromatic compounds and chromium hexacarbonyl according to the equation



In this manner aromatic-chromium-tricarbonyl compounds were prepared containing benzene, toluene, o-, m-, p-xylene, symmetrical trimethylbenzene, tetrahydronaphthalene, chlorobenzene, anisole, benzyl alcohol and methylbenzoate. The compounds, which contain aromatic nuclei linked to the chromium with σ bonds, are crystalline yellow solids, sublimable at 60° to 100°C under a vacuum of 10⁻² mm Hg, and are monomeric by cryoscopy in benzene.

61-10700

I. Chromium carbonyls --
Synthesis

I. Natta, G.

II. Ercoli, R.

III. Calderazzo, F.

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(Chemistry--Organic,
TT, v. 3, no. 10)

Kinetics of the Polymerization of Propylene by
Means of Heterogeneous Catalysts With High Stereo-
Specificity. VI. Kinetic Determination of Active
Centers, by G. Natta, et al.

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Stereospecific Polymerizations of Conjugated
Diolefins, Note IV. Preparation of Syndiotactic
1, 2-Polybutadiene, by G. Natta, L. Porri, 18 p.

ITALIAN, per, Chimica e l'Industria 1959,
Vol XII, No 6, pp 526-533.

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Vol XII, No 3

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Elastic and Inelastic Behavior of Some Atactic
Polymers, by G. Natta.

ITALIAN, per, Chimie et Industrie, Vol. XII, No 8,
1959, pp 733-740.

SLA 77-65-10186

ATG 333-1J

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Sci - Chem

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The Copolymerization of Ethylene With the
Aliphatic Alpha Olefins, Note VI.
Copolymerization of Ethylene With Butene-1, by
G. Natta, G. Mazzanti, et al, 34 pp.

ITALIAN, per, la Chimica e l'Industria, Vol. XLI,
No. 8, 1959, pp 764-773.

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Stereospecific Polymerization of Vinyl-
Aromatic Monomers. III. Vinyl
Derivatives of Polynuclear Aromatic
Hydrocarbons, by G. Matita, F. Canonica, 4 pp.

ITALIAN, per, La Chimica e l'Industria,
Vol XLII, No 10, 1959, pp 964-967.

SLA 60-18097

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Natta, G. and Rigamonti, R.
ELECTRONIC RAY EXAMINATION OF SOME
VINYL POLYMERS [Esame coi Raggi di Elettroni di
Alcuni Polimeri Vinilici]. [1963] 8p. (figs. omitted)
6 refs.

Order from SLA \$1.10

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Trans. of [Accademia Nazionale dei Lincei. Classe
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Rendiconti (Italy) 1936 [ser. 6] v. 24, p. 381-388.
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DESCRIPTORS: *Vinyl radicals, Polymers, *Vinyl
plastics, Molecular electronics, Electron beams.

An examination is made of the interferences produced
in electron rays by thin laminas (thickness 10^{-5} cm)
of some linear vinyl polymers: polyvinyl bromide,
(Materials--Plastics, TT, v. 10, no. 3) (over)

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- I. Natta, G.
- II. Rigamonti, R.

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CONTROL OF THE MOLECULAR WEIGHT OF
ISOTACTIC POLYPROPYLENE BY MEANS OF ZINC
ALKYLIS. [1960] 6000 words 20 refs.
Order from CTS(Chem) \$24.00 CTS(Chem)-178
subsequent copies \$4.00/ea.

Trans. of [la] Chimica e Industria (Italy) 1960, v. 42,
no. 10, p. 1091-1099.

(Chemistry--Organic, TT, v. 5, no. 3)

61-12141

1. Propene polymers--
Molecular weight
2. Zinc compounds (Organic)--
Chemical reactions
- I. Natta, G.
- II. Giachetti, E.
- III. CTS(Chem)-178
- IV. Chemical Translating
Service, Palo Alto, Calif.

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Kinetic and Catalytic Aspects of the Stereospecific
Polymerisation of Alpha-Olefine
By G. Natta and I. Pasquon, pp. 23

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Strength in Verlon Filament in Cold-Drawing, by
D. Hatus,

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Stresses in Perlon Filament ~~EX~~ in Cold-
Drawing, by D. Natus, H. Sauer,
H. Wenderoth, 6 pp.

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The Influence of Various Spinning Conditions on
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Infection, by H. S. Natsheva*En.
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*TID-71-65-1062

H. S. Natsheva

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and Mode of Action by E. N. Mishustin and
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No 3, 1962, pp 243-255.

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Preparative Method for the Synthesis of Nitriles
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John H. Anderson, PhD, DSc.
J. Biol. Med., 1963, Vol. VI,
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Paul Nau

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